APPENDIX C - INTERROGATE MODULATOR INTERFACE REQUIREMENTS

Addresses are supplied by the on-line DCS/DAPS Wallops subsystem computer to both the EAST and WEST modulators simultaneously at the rate of one every 0.5 seconds. Each modulator provides a two-Hertz level-shift signal (0.5 second period). This output is intended for use as a computer interrupt and represents a request for an address (ADDRESS REQUEST). The modulator interface, consisting of a data input, clock output, and ADDRESS REQUEST, has the signal-level and timing characteristics of EIA Standard RS232C. Specifically:

DATA RATE:	2400 BPS
CLOCK RATE:	2400 Hz
LOGIC ZERO LEVEL:	>+3 Volts**
LOGIC ONE LEVEL:	<-3 Volts**
CONNECTOR:	MS 3112-E12-10S

ADDRESS REQ. RESPONSE TIME: 480 milliseconds from plus to minus transition

**Reference characteristics of Motorola MC1489L integrated circuit.

The ADDRESS REQUESTS (2 Hz level-shift) from each (of two) modulators are synchronized <u>one</u> level-shift signal may be used as a request for <u>both</u> modulators. In the event of a failure of either Magnavox subsystem, addresses must be provided to the other subsystem (using the remaining ADDRESS REQUEST).

PIN	FUNCTION
A	ADDRESS REQUEST (2 Hz)
B	Data Input
C	2400 Hz Output
D	Ground
E	+12 V

Interrogate Modulator Computer Interface Connector (J8) Pin Assignment.

The DAPS INTERFACE port on the DICE carries the signals and controls to the DAPS.

a. A multi-conductor cable (Belden 9535 or equivalent) is run from the DAPS INTERFACE connector on the DICE, to its corresponding connector on the interface panel at the bottom of the equipment rack.

b. Connect one end of the Belden 9535 cable to a male 25 pin D-Sub connector, per the following wire list. Connect this cable to the DAPS Interface port on the DICE. Be sure to run the cable over the Cable Arm. Run the cable through the Cable Arm and down the right rear side of the equipment rack as described in the S-BAND TX IF section.

D-Sub connector	Signal	Bendix connector	Color
Pin 1	Shield	N/C	N/A
Pin 2	TXD	Pin B	White
Pin 5	CTS	Pin E	Green
Pin 6	DSR	Pin A	Brown
Pin 7	GND	Pin D	Black
Pin 15	TXC	Pin C	Red

c. Locate the point on the interface panel where the cable will be connected. Cut the cable to length. Refer to the wire list in Step 1-b, above. Terminate this end of the cable with a Bendix SP02E-12-10S connector. Hook up the cable to its mating point on the interface panel. Label each end of the cable in accordance with NOAA/NESDIS Standard S24.803, Cable and Wire Identification.